

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 14

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte LEE F. NIKKEL
and EUGENE H. SCHMIDT

Appeal No. 1999-1718
Application 08/786,742

ON BRIEF

Before ABRAMS, McQUADE and GONZALES, Administrative Patent Judges.

McQUADE, Administrative Patent Judge.

DECISION ON APPEAL

Lee F. Nikkel et al. appeal from the final rejection of claims 1 through 9, 11 through 14, 16 through 19 and 21, all of the claims pending in the application. We reverse.

THE INVENTION

The invention relates to a "row crop debris clearing apparatus for agricultural usage" (specification, page 1).

Claim 1 is illustrative and reads as follows:¹

1. Apparatus for use with a farm implement for clearing debris from a path in a field during forward movement of the farming implement, said apparatus comprising:

a frame structure having a support;

a pair of rotatable clearing disks, each having an inward and outward side, each disk having a generally circular outer shape, a generally concave outward side surface and a plurality of backswept notches in its outer periphery;

a pair of disk mounts for attaching said pair of clearing disks to said support, said disk mounts being oriented to position each of said pair of disks to converge adjacent one another at the forward reach of said disks, the rearward reach of said disks being spaced apart from one another so that the general planes of the disks are angled outwardly from the forward reach to the rearward reach thereof;

¹The following informalities are deserving of correction in the event of further prosecution before the examiner: in claim 2, the recitation that the "support" comprises a "shank" conflicts with the underlying specification (see page 5) which describes the two as separate elements; in claims 11 and 16, the term "said disk mounts" lacks a proper antecedent basis and there is a double recitation of the clearing disks; and in claim 21, the specified claim dependency is from canceled claim 20.

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said inward side of each of said rotatable clearing disks being attached to one of said disk mounts;

the forward reach of one of said clearing disks being spaced between about 3 and about 10 inches from the forward reach of the other of said clearing disks in a direction along said path; and

a mounting means for attaching said apparatus to the farm implement.

THE PRIOR ART

The references relied upon by the examiner as evidence of obviousness are:

Carney 1955	2,698,565	Jan. 4,
Williams et al. (Williams) 1984	4,425,973	Jan. 17,
White 1984	4,431,061	Feb. 14,
Groff 1996	5,497,836	Mar. 12,

THE REJECTIONS

Claims 1, 3, 5, 7 and 11 stand rejected under 35 U.S.C.
§ 103(a) as being unpatentable over Williams.

Claim 2 stands rejected under 35 U.S.C. § 103(a) as being

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unpatentable over Williams in view of White.

Claim 4 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Williams in view of Carney.

Claims 6, 8, 9, 12 through 14, 16 through 19 and 21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Williams in view of Groff.

Attention is directed to the appellants' main and reply briefs (Paper Nos. 10 and 12) and to the examiner's answer (Paper No. 11) for the respective positions of the appellants and the examiner with regard to the merits of these rejections.

DISCUSSION

Williams, the examiner's primary reference, discloses a debris clearing apparatus of the sort recited in the appealed claims. The apparatus includes a pair of notched clearing discs 112 having respective forward reaches which, as shown in

Figure 3, are spaced from one another in a path clearing direction. Williams, however, gives no indication as to the magnitude of this spacing. Thus, as conceded by the examiner (see pages 4, 8 through 10 and 16 in the answer), Williams does not meet the limitation in independent claim 1 requiring "the forward reach of one of said clearing disks being spaced between about 3 and about 10 inches from the forward reach of the other of said clearing disks in a direction along said path," or the substantively corresponding limitations in independent claims 11 and 16.² The appellants explain in the underlying specification (see pages 2 and 6), and recite to some extent in claims 11 and 16, that the specified spacing range minimizes the possibility that the disks will interfere with one another by engaging a single item of debris at the same time which could cause the debris to remain in the path and/or plug up the apparatus.

²The examiner's alternate position that "Williams et al. as shown in figure 3, appears to show the forward reach of one disk spaced **about** 3 inches from the forward reach of the other disk" (answer, page 13) is completely unfounded.

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Notwithstanding the foregoing deficiency in Williams, the examiner has concluded that

it would have been obvious to one having ordinary skill in the art at the time the invention was made . . . to provide a distance of between 3 and 10 inches between the forward reaches of the [Williams] disks, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233 [answer, page 4].

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Along these lines, the examiner stresses that "appellants have not provided any **proof** that the range is critical, or provided evidence that the claimed range provides **new and unexpected results**" (answer, page 16).

The examiner's reliance on In re Aller, 220 F.2d 454, 105 USPQ 233 (CCPA 1955) to support the appealed rejections is not well taken.

Aller stands for the principle that the discovery of an optimum value of a variable in a known process is normally obvious. In re Antonie, 559 F.2d 618, 620, 195 USPQ 6, 8-9 (CCPA 1977). Exceptions to this general rule lie in cases where the results of optimizing a variable, which was known to be result effective, were unexpectedly good or where the parameter optimized was not recognized to be a result-effective variable. Id.

The record in the present case shows that the appellants recognized the spacing between the forward reaches of a pair

of clearing disks in a debris clearing apparatus of the type claimed to be a result-effective variable bearing on the performance of the apparatus, with the about 3 to about 10 inch range specified in the claims minimizing the possibility of operative interference between the disks. There is nothing in Williams, considered alone or in any combination with White, Carney and/or Groff, which demonstrates that this recognition was shared by the prior art. In other words, the applied references do not establish that the spacing between the forward reaches of a pair of clearing disks in a debris clearing apparatus of the type claimed was an art-recognized result-effective variable. This fact situation falls into one of the exceptions to the general rule established by Aller, and it matters not that the record is lacking in proof that the claimed spacing range is critical or provides new and unexpected results.

Thus, the applied references fail to justify the examiner's conclusion that the differences between the subject matter recited in independent claims 1, 11 and 16, and in dependent claims 2 through 9, 12 through 14, 17 through 19 and

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21, are such that the subject matter as a whole would have
been obvious at the time the invention was made to a person
having ordinary skill in the art. Therefore, we shall not
sustain any of the standing
35 U.S.C. § 103(a) rejections of these claims.

The decision of the examiner is reversed.

REVERSED

	NEAL E. ABRAMS)	
	Administrative Patent Judge)	
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)) BOARD OF
PATENT			
	JOHN P. McQUADE)	APPEALS
	Administrative Patent Judge)	AND
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INTERFERENCES)	

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JOHN F. GONZALES
Administrative Patent Judge

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GREER, BURNS & CRAIN, LTD
STE. 8660 SEARS TOWER
233 SOUTH WACKER DRIVE
CHICAGO, IL 60606

JPM/dal